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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,336	11/27/2001	Bernard Etkin	ETK 4910.1	9666

321 7590 02/27/2003

SENNIGER POWERS LEAVITT AND ROEDEL
ONE METROPOLITAN SQUARE
16TH FLOOR
ST LOUIS, MO 63102

EXAMINER

CHAPMAN JR, JOHN E

ART UNIT	PAPER NUMBER
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2856

DATE MAILED: 02/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PS-

Office Action Summary

Application No.

09/995,336

Applicant(s)

ETKIN ET AL.

Examiner

John E Chapman

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other:

DETAILED ACTION

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

2. The drawings are objected to because "534" in Fig. FC should be --530--, as per page 34, lines 7-9.

Figures 6, 7 and 9 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

The pneumatic mount recited in claim 22 must be shown or the feature canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. Claim 7 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim, or amend the claim to place the claim in proper dependent form.

A gravity gradiometer by definition measures a gravity gradient component.

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 28-30 and 32-33 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 28-29 are directed to a map, i.e. a graphical representation of data. The mere embodiment of data is non-statutory subject matter. Likewise, the mere embodiment of data in computer readable form (claim 30) is non-statutory. Claims 32-33 attempt to claim the object being measured, e.g., a mineral deposit. Measuring a known object does not entitle applicant to claim that object.

6. The following is a quotation of the first and second paragraphs of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 6, 14-18 and 20 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claim 6, it is not clear how the coarse stage isolation mount communicates with the navigation system so that the fine stage isolation mount travels along a smoother flight path.

Regarding claim 14, it is not clear how the first low cutoff frequency is adjustable.

Regarding claim 16, it is not clear how the cutoff frequency is separately adjusted.

Regarding claim 20, it is not clear how the cutoff frequencies are separately adjusted

8. Claims 1-27 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the recitation of "displacements" in line 3 is vague and indefinite. Displacements of what? It should be made clear what displacements are being attenuated, namely, displacements of a vehicle. Likewise it should be made clear that vibrations of the vehicle are being attenuated.

Regarding claim 11, it is not clear that the coarse stage isolation mount controls the position of the fine stage isolation mount relative to a smoothed representation of the flight path. Furthermore, there is inadequate structure recited to support the controlling being "constrained by interior dimensions of said mobile vehicle," since such presupposes position sensors which have not been claimed.

Regarding claim 13, there is inadequate structure recited to support the coarse stage isolation mount directing the fine stage isolation mount to a home position, since such presupposes position sensors which have not been claimed. Furthermore, the "home position" is measured relative to the mobile vehicle and not the coarse stage isolation mount. Note claim 27.

Regarding claim 14, there is insufficient structure recited to support the desired result of the first low cutoff frequency being adjustable. A means for adjusting the first low cutoff frequency should be recited.

Regarding claim 16, a means for separately adjusting the cutoff frequency should be recited.

Regarding claim 18, a gyroscope is not an accelerometer.

Regarding claim 19, the recitation of "displacements" in line 4 is vague and indefinite. Displacements of what? It should be made clear what displacements are being attenuated, namely, displacements of a vehicle. Likewise it should be made clear that vibrations of the vehicle are being attenuated.

Regarding claim 20, a means for separately adjusting the cutoff frequencies should be recited.

Regarding claim 21, the expression "means for isolating displacements" in line 2 is vague and indefinite. It should be made clear what displacements are being isolated from what, i.e., that displacements of a vehicle are being isolated from the gravity gradiometer. Likewise it should be made clear that the "means for isolating vibrations" in line 3 is isolating the gravity gradiometer from vibrations of the vehicle.

Regarding claim 23, there is insufficient antecedent basis for "said vibrations" in line 10.

Regarding claim 31, it should be made clear what displacements and vibrations are being attenuated.

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 19 and 20, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Tryggvason et al.


Tryggvason et al. discloses an isolation system comprising a coarse stage isolation mount LMIM and a fine stage isolation mount. The intended use of measuring gravity gradient is not given any weight, since a gravity gradiometer is not claimed.

Regarding claim 20, the responses of the isolation mounts are independently adjustable.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mayer discloses a gravity gradiometer mounted on a platform 10.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Chapman whose telephone number is (703) 305-4920.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.


JOHN E. CHAPMAN
PRIMARY EXAMINER